PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of	Docket No: Q77528
Wim HENDERICKX, et al.	
Appln. No.: 10/690,544	Group Art Unit: 2619
Confirmation No.: 6418	Examiner: Ketan S. SONI
Filed: October 23, 2003	
For: TELECOMMUNICATION ROUTER	

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

MAIL STOP APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 41.37, Appellant submits the following:

Table of Contents

I. REAL PARTY IN INTEREST....2
II. RELATED APPEALS AND INTERFERENCES....3
III. STATUS OF CLAIMS....4
IV. STATUS OF AMENDMENTS....5
V. SUMMARY OF THE CLAIMED SUBJECT MATTER....6
VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL....8
VII. ARGUMENT....9
CLAIMS APPENDIX....13
EVIDENCE APPENDIX:....16
RELATED PROCEEDINGS APPENDIX....17

I. REAL PARTY IN INTEREST

The real party in interest is ALCATEL, by virtue of an assignment executed by joint inventors Wim HENDERICKX on September 1, 2003, Peter Alfons VAN HESSCHE on September 1, 2003 and Guido Josef Nelly HEREYGERS on September 1, 2003, filed at the U.S. Patent and Trademark Office on October 23, 2003, and recorded by the Assignment Branch of the U.S. Patent and Trademark Office on October 23, 2003 (at Reel 014631, Frame 0895).

II. RELATED APPEALS AND INTERFERENCES

Upon information and belief, there are no other prior or pending appeals, interferences or judicial proceedings known to Appellant's representative or the Assignee that may be related to, be directly affected by, or have a bearing on the Board's decision on Appeal.

III. STATUS OF CLAIMS

Claims 1-3 and 5-9 constitute all currently pending claims in the present application, all of which are the subject of this appeal. All claims pending in the present application are set forth in their entirety in the attached Claims Appendix.

Claims 1-3 and 5-9 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 7,225,271 to DiBiasio et al.

IV. STATUS OF AMENDMENTS

Claims 1-3 and 5-9 have not been amended subsequent to the Final Office Action of November 28, 2007. The claims, thus, stand as presented before the Final Office Action of November 28, 2007.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The concise description of the claimed subject matter of the present invention is set forth below with regard to certain claims at issue in this Appeal. The following discussion includes citations to various portions of the present application in order to aid in an understanding of the invention by reference to certain exemplary embodiments. These citations, unless otherwise indicated, are intended only to point out supporting exemplary embodiments and are not to be construed as limiting the scope of the claims.

A. Overview

The present invention relates to a telecommunication router connected to a termination link and comprising a processor adapted to handle packets of data received from said link.

In conventional telecommunications routers, a processor in the router may run out of resources because there is not enough memory or processing power to handle all incoming packets. Conventional approaches to solving this problem are limited and do not efficiently or optimally utilize the resources of the processor in such a router.

In certain non-limiting exemplary embodiments of the invention, devices are provided to overcome these drawbacks by, in part, providing a plurality of queues, a queue manager, and other components, employed so as to efficiently utilize the processing power of a router, and effectively process a maximum of packets.

The above description, however, is only a short overview of a few of the features of certain exemplary embodiments of the invention, which may assist in an understanding of the claims.

B. Independent Claim 1

Claim 1 is directed to "[a] telecommunication router connected to a termination link and comprising a processor adapted to handle packets of data received from said link." (E.g., Specification at p. 1, ll. 1-3).

The telecommunication router comprises "a plurality of queues adapted to store packets of data before said packets of data are transferred to said processor;" (e.g., id. at p. 2, ll. 5-7; p. 5, ll. 15-19; Fig. 1) and "a packet classifier adapted to receive said packets of data from said termination link," (e.g., id. at p. 4, ll. 6-15) "to classify said received packets of data according to predetermined types," (e.g., id. at p. 4, ll. 13-15) and "to forward each of said classified packets of data towards one queue of said plurality of queues," (e.g., id. at p. 5, ll. 23-25) "said one queue being selected according to the type of each of said classified packets of data;" (e.g., id. at p. 4, ll. 13-14; p. 5, ll. 6-7, 17-25) "wherein each of said predetermined types is associated to a predetermined priority;" (e.g., id. at p. 5, ll. 6-7) "said processor is adapted to retrieve packets of data from the queues of said plurality according to predetermined priority rules;" (e.g., id. at p. 5, l. 26 – p. 6, l. 2; p. 6, ll. 11-15) and "each queue of said plurality of queues is controlled by a queue manager adapted to discard packets coming from said packet classifier when a predetermined threshold filling level of the queue is reached" (e.g., id. at p. 6, ll. 3-10).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

There is only one issue in this appeal: whether claims 1-3 and 5-9 are improperly rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 7,225,271 to DiBiasio et al.

For the purposes of this appeal, dependent claims 2, 3, and 5-9 stand together with independent claim 1.

VII. ARGUMENT

Claims 1-3 and 5-9 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 7,225,271 to DiBiasio et al. ("DiBiasio"). Appellant traverses this rejection for at least the following reasons.

A. Independent Claim 1

In the Amendment filed on September 11, 2007, Appellant asserted that claim 1 was not taught by DiBiasio. The Examiner's statement of disagreement with Appellant's assertions appears in the Office Action of November 28, 2007; however, the Examiner fails to provide sufficient evidence-backed reasoning to maintain the rejection, and fails to make out a prima facie case of anticipation.

Claim 1 requires that "each queue of said plurality of queues is controlled by a queue manager adapted to discard packets coming from said packet classifier when a predetermined threshold filling level of the queue is reached." Claim 1 thus requires, inter alia, that (1) it is the "queue manager" which is adapted to "discard packets," and that (2) the claimed packets must be discarded "when a predetermined threshold filling level of the queue is reached." These features are not disclosed in DiBiasio.

First, the Examiner fails to show that DiBiasio teaches a "queue manager" adapted to "discard packets." In the "Response to Arguments" section of the instant Office Action, the Examiner asserts that "DiBiasio discloses that RSVP engine performs admission control," citing col. 11, ll. 5-6 of DiBiasio. (Office Action of November 28, 2007 at 7.) The Examiner further asserts that the "RSVP engine directs the classification engine to place packets in priority queue," citing col. 12, ll. 6-8 of DiBiasio. Id.

The RSVP engine of DiBiasio, however, is clearly not a "queue manager." In fact, the Examiner appears to concede this point in the following manner. The Examiner stated that "[a]s shown in Fig. 5, Queue selector 510 manages the queues Q1-Q4." Id. Moreover, the queue selector 510, identified by the Examiner as the "queue manager" of claim 1 in the above quotation, does not discard packets in the manner required by claim 1.

With respect to the queue manager, Appellant also respectfully submits that the Examiner has not sufficiently addressed Appellant's argument as presented in the Amendment filed on September 11, 2007. That is to say, Appellant has pointed out that the Examiner's case for anticipation is not sufficiently based in the evidence in the record, and the Examiner has not shown the manner in which the prior art supports the Examiner's position.

For example, Appellant clearly stated that "the RSVP engine for 24 is not a queue manager because it *does not manage the queues* the Examiner associates with the queues of claim 1." As described above, the Examiner has again failed to address the fact that the RSVP engine of DiBiasio does not manage the queues in the Office Action of November 28, 2007, as required by MPEP § 707.07(f). The Examiner's case for anticipation is thus made out with a prior art queue manager that does not meet the express limitations of the claim, and no evidence has been set forth by the Examiner that the prior art queue manager functions in the manner required. The Examiner has never properly or fully addressed this point, and yet has maintained the rejection.

Furthermore, the performance of "admission control" involving a denial of a reservation request is clearly distinct from discarding packets (i.e., from that which is claimed). The denial of a reservation request is an affirmative response to a request for admission, not a discarding of

individual packets. For example, DiBiasio states that "the RSVP engine 424 directs is message generator 426 to formulate a reservation error (ResvErr) message, which is then sent back toward the destination/receiving entity. . . . Voice agent 204 is thereby notified that its reservation request has failed, and that sufficient resources will not be reserved for the traffic flow from voice agent 202. The call may or may not proceed." (DiBiasio at col. 11, ll. 43-50.)

Second, nothing in DiBiasio appears to contemplate discarding packets "when a predetermined threshold filling level of the queue is reached." DiBiasio contains no discussion of a threshold, and the Examiner has failed to assert that this requirement of claim 1 is met. At best, DiBiasio merely suggests the possibility of the "PQ" of DiBiasio becoming full, in which case packets may be dropped. (DiBiasio at col. 12, lines 16-20.) The language of DiBiasio clearly indicates that this dropping of packets is of an unintentional and undesired nature, since it states that "[i]n addition . . . the likelihood of the PQ becoming full and packets being dropped is significantly reduced," thereby teaching away from any discarding of packets. (DiBiasio at col. 12, ll. 16-20.) Moreover, with respect to a predetermined threshold filling level, DiBiasio appears to contain no teaching of such a feature whatsoever.

It seems unreasonable on its face for the Examiner to find that DiBiasio's denial of a reservation request is the same as the claimed discarding of packets which have already been accepted into a queue. Appellant has pointed this out, and now it is the Examiner's burden to provide some evidence that denying a reservation request is the same as intentionally discarding packets from a queue in response to the condition mentioned expressly in the rejected claim. Appellant can conceive of no such evidence existing, however, any more than evidence might exist to prove that 3 equals 4.

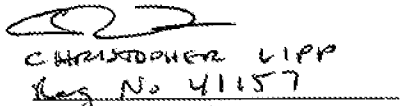
Appellant, therefore, emphasizes that DiBiasio contains no teaching of an intentional discarding of packets by a queue manager, and contains no teaching that packets should be intentionally discarded "when a predetermined threshold filling level of the queue is reached." Thus, DiBiasio fails to teach each and every required element of claim 1, and therefore, fails to anticipate claim 1. Accordingly, Appellant respectfully requests that the rejection of independent claim 1 and its dependent claims 2, 3, and 5-9 be withdrawn.

B. Conclusion

This Appeal Brief is being filed via the USPTO Electronic Filing System (EFS). Appellant herewith petitions the Director of the USPTO to extend the time for filing this Appeal Brief for an appropriate length of time if necessary. Any fee due under 37 C.F.R. §41.37(a) and 37 U.S.C. § 1.17(c) is being paid via the USPTO Electronic Filing System (EFS).

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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Date: June 13, 2008

CLAIMS APPENDIX

CLAIMS 1-3 AND 5-9 ON APPEAL:

1. (previously presented): A telecommunication router connected to a termination link and comprising a processor adapted to handle packets of data received from said link, the telecommunication router comprising:

a plurality of queues adapted to store packets of data before said packets of data are transferred to said processor; and

a packet classifier adapted to receive said packets of data from said termination link, to classify said received packets of data according to predetermined types, and to forward each of said classified packets of data towards one queue of said plurality of queues, said one queue being selected according to the type of each of said classified packets of data;

wherein

each of said predetermined types is associated to a predetermined priority;

said processor is adapted to retrieve packets of data from the queues of said plurality according to predetermined priority rules; and

each queue of said plurality of queues is controlled by a queue manager adapted to discard packets coming from said packet classifier when a predetermined threshold filling level of the queue is reached.

2. (previously presented): The telecommunication router according to claim 1, wherein said processor is adapted to retrieve packets of data from a queue associated to a

relatively higher predetermined priority prior to retrieving packets of data from another queue associated to a relatively lower predetermined priority.

3. (previously presented): The telecommunication router according to claim 1, wherein said packet classifier is adapted to estimate said predetermined priority by analyzing the content of a packet and to forward the analyzed packet to the queue corresponding to the estimated priority.

4. (canceled).

5. (previously presented): The telecommunication router according to claim 1, wherein each queue of said plurality of queues may have a different predetermined threshold filling level.

6. (previously presented): The telecommunication router according to claim 1, wherein said processor is adapted to retrieve packets of data from said queues according to the load of said processor.

7. (previously presented): The telecommunication router according to claim 1, wherein a plurality of termination links are connected to said packet classifier.

8. (previously presented): The telecommunication router according to claim 1, wherein a plurality of processors are adapted to retrieve packets of data from said queues.

9. (previously presented): The telecommunication router according to claim 1, wherein said packet classifier is adapted to forward to an output port of said telecommunication router packets that are not intended to said processor.

EVIDENCE APPENDIX:

Pursuant to 37 C.F.R. § 41.37(c)(1)(ix), submitted herewith are copies of any evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 or any other evidence entered by the Examiner and relied upon by Appellant in the appeal.

NONE

RELATED PROCEEDINGS APPENDIX

Submitted herewith are copies of decisions rendered by a court or the Board in any proceeding identified about in Section II pursuant to 37 C.F.R. § 41.37(c)(1)(ii).

NONE

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SUBMISSION OF APPEAL BRIEF

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Sir:

Submitted herewith please find an Appeal Brief. The USPTO is directed and authorized to charge the statutory fee of $510.00, and all other required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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